



# YELLOWSTONE FOREVER

## COYOTES & WOLVES: YELLOWSTONE'S EVOLUTIONARY COUSINS

### Itinerary & Details

FIELD SEMINAR – SUMMER 2023

**INSTRUCTOR:** Joanna Lambert, Ph.D.

**INSTRUCTOR BIOGRAPHY:** Joanna Lambert, PhD is a scientist and tenured professor of animal evolutionary ecology and conservation biology at the University of Colorado – Boulder. She has a deep passion for the natural world resulting in a career spent publishing and teaching about the ecology and conservation biology of wild mammals. Her wildlife research has taken her to every continent on the planet though she has spent most time working in equatorial Africa (>30 years) and more recently in Yellowstone National Park where she studies canid biology. One of her proudest recent conservation-related contributions has been in the effort to restore gray wolves to her home state of Colorado, an initiative founded on the science of reintroduction and recovery of wolves to Yellowstone National Park.

**ACTIVITY LEVEL:** This course is an activity **level 3** and students enrolled in this course are expected to be active participants. Be prepared to hike up to 5 miles per day, comfortably, with occasional elevation gains up to 1000 feet in undulating terrain.\*

*\*All field activities will be conducted as a group. If you cannot meet the activity level expectations during your program, you may be restricted from participation in daily outings. We will not alter program itineraries or activities to accommodate participants who cannot meet the expectations of the stated activity level.*

**LOCATION:** Lamar Buffalo Ranch – Yellowstone National Park, WY

**PROGRAM DATES & TIMES:** The program begins at 7:00 p.m. on Wednesday, July 19, 2023, and ends on Saturday, July 22, 2023, at 4:00 p.m.

**LODGING CHECK-IN & CHECK-OUT:** Lodging check-in begins at 4:00 p.m. on Wednesday, July 19, 2023, and lodging check-out is at 9:00 a.m. on Sunday, July 23, 2023.

**MEALS:** You will need to bring your own food; lunch should be able to travel in the field with you.

For general information about the facilities, preparing for classes, what to expect, cancellation policies, and more, please see the [Lamar Buffalo Ranch - Summer General Information](#) document.

## FROM THE INSTRUCTOR

In this seminar we will explore the exciting story of Yellowstone's beloved evolutionary cousins: gray wolves (*Canis lupus*) and coyotes (*Canis latrans*). While fossils suggest that these two species diverged over a million years ago, more recent genetic analyses suggest that that this divergence may have been as recent as approximately 50,000 years ago – just a blink in evolutionary time! Yet while many similarities exist between these two species, important ecological and behavioral differences occur too. For example, gray wolves are distributed throughout the Northern Hemisphere (North America, Europe, and Asia), whereas coyotes are a true American species, found only in North and – now – Central America. Gray wolves will always seek out and spend their lives in social groups, while coyotes often live as solitary individuals. Both species were targeted throughout the 19th and 20th centuries in US predator control campaigns, but while gray wolf numbers plummeted, teetering on the edge of extinction in the US by the 1960s, the distribution of coyotes has continuously expanded over the past 50+ years. What accounts for these differences? Just how similar are they? In the field, lecture, and film we will explore the evolutionary history of coyotes and wolves, observe, and discuss their similarities and differences, and gain a rich appreciation of the behavior and ecology of these two iconic Yellowstone canids.

I am hoping to spend as much time as possible outdoors—weather and conditions permitting, this will include at least 6 hours+ looking for and observing animals, particularly wolves and coyotes, but also foxes (if wolves or coyotes are difficult to find). And, as always in Yellowstone, we will be on the lookout for any amazing animal sighting and be spontaneous in our observations. In addition, in the late afternoon/early evening, if there is enough interest and time, I will organize optional hikes in areas of the Northern Range (near the Lamar Buffalo Ranch) where there is good viewing of wildlife.

I am so looking forward to meeting you and enjoying the magnificence of Yellowstone together!

Please feel free to contact me before the course starts! I can be reached at: [joanna.lambert@colorado.edu](mailto:joanna.lambert@colorado.edu) and [www.joannalambert.com](http://www.joannalambert.com)

-Joanna

## PROGRAM ITINERARY

The itinerary is designed to take advantage of the best opportunities in the park, but may be adjusted to adapt to weather conditions, wildlife activity, holidays, and road construction. *The details and timing of the agenda are subject to change.*

### Day 1 **Orientation**

The program starts with an evening orientation during which participants will be introduced to the Lamar Buffalo Ranch and go over Field Seminar overview and itinerary.

### Days 2-4 **Wildlife Watching and Observations**

Participants will spend each morning in the field looking for wolves and coyotes and observing their behavior, with the idea of spending as little time in the vehicle as possible. If other canids are encountered (i.e., red fox) observation will be made of them as well. Emphasis will be on the northern range. Also, of course, we will spontaneously take advantage of all amazing wildlife sightings!

After a morning spent in the field, participants will return to the Lamar Buffalo Ranch for a late lunch, a bit of down time, then a lecture. Each late afternoon the students will be given the option of going on a guided natural history hike in which animals will be observed. Depending on time, an early evening animal viewing drive might also be an option.

*Impromptu* discussions in the field will center on:

- What is the evolutionary history of the canids? When and where did coyotes and wolves evolve? Why do dogs, wolves, and coyotes mate so readily?
- Why have coyotes done so well ecologically over the past 50 years?
- What is the history of persecution of wolves and coyotes?
- What are the behavioral differences between wolves and coyotes?
- What do behaviors mean? Behavioral differences between males/females, adults/sub-adults, and high/low ranking animals.

### Day 5 Check out by 9:00 a.m.

## PROGRAM EQUIPMENT

For a full list of recommended equipment for all courses see the [Lamar Buffalo Ranch - Summer General Information](#) document.

Items specific to this course are:

- Optics – Binoculars and spotting scopes provided by the Yellowstone Forever Institute are available, however, if you have your own optics, you are encouraged to bring them.
- Field Notebook

## RECOMMENDED READING

No prior reading is required, but participants might enjoy the following publications, that complement the program. Note, too, that the Lamar Buffalo Ranch has a diverse library with many relevant books.

- Flores, Dan (2017) *Coyote America: A Natural and Supernatural History*. Basic Book Publishers.
- Smith DW, Stahler DR, MacNulty DR (2021) *Yellowstone Wolves: Science and Discovery in the World's First National Park*. University of Chicago Press.

## WHOM TO CONTACT

**For any questions, concerns, or additional information please contact the following:**

- Program itinerary, health forms, payment, and activity questions please contact Yellowstone Forever at [institute@yellowstone.org](mailto:institute@yellowstone.org) or 406-848-2400
- Road updates, park conditions, and general park information please contact Yellowstone National Park Service at <https://www.nps.gov/yell/contacts.htm>
- If running late for a program, please contact 406-848-2400